

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Permitting and Compliance Division
Waste and Underground Tank Management Bureau
Solid Waste Section

Response to Public Comments Received for the Proposed Land Application Site – Scofield Property

September 20, 2012

Mr. John Clark (applicant), owner of Scenic City Enterprises, submitted an application to the Department of Environmental Quality (DEQ) for a new septage land application site in Broadwater County. The site is located on the Don Scofield property in the W ½ and the S ½ of Section 10, Township 2 North, Range 1 East, MPM, Broadwater County, Montana.

The Environmental Assessment (EA) completed for the proposed project was mailed to adjoining property owners at the beginning of the 30 day public comment period that ended on August 13, 2012. To provide extra time for additional interested persons to review the EA, DEQ extended the comment period to August 28, 2012. According to the Montana Environmental Policy Act (MEPA), the EA is the procedural document that communicates the process agencies follow in their decision-making. An EA does not result in a certain decision, but rather serves to identify the potential effect of a state action within the confines of existing laws and rules governing such proposed activities so that agencies make balanced decisions. The MEPA process does not provide regulatory authority beyond the authority explicitly provided in existing statute. DEQ must consider substantive comments received in response to an EA prior to making a final decision.

The Septage Disposal and Licensure laws and rules establish the minimum requirements for the land application of septage and grease-trap wastes. The EA is the mechanism that DEQ uses to: 1) Determine whether a proposed land application site meets the minimum requirements for compliance with the current laws and rules and is therefore licensable as proposed; 2) Assist the public in understanding the licensing laws of the Septage Disposal and Licensure program; 3) Identify and discuss the potential environmental effects of the proposed land application activity if it is approved and becomes operational; 4) Discuss actions taken by the applicant and the enforceable measures and conditions designed to mitigate the effects identified by DEQ during the review of the application; and 5) Seek public input to ensure DEQ has identified the substantive environmental effects associated with the proposed land application activities.

DEQ's Solid Waste and Septic Tank Pumper Program has reviewed and evaluated all written comments submitted during the public comment period. The substantive comments with similar content that are within the context of the project have been summarized and combined for the purpose of providing an inclusive response to comparable issues. DEQ's responses to the written comments that were received are organized as follows:

- I. Site Selection - Location and Soils
- II. Traffic Impacts
- III. Surface Water Impacts
- IV. Ground Water Impacts
- V. Wildlife Impacts
- VI. EA
- VII. Site Operation and Management

VIII. Miscellaneous

IX. Conclusions and Recommendations

I. Site Selection Criteria

I.1 Comment:

Commenter's felt that the site was located too close to a residential development and too close to properties that may be developed for residential use in the future.

I.1 Response:

Comment noted. Land application sites must meet specific minimum criteria in order for a site to be considered for land application. In accordance with the Administrative Rules of Montana (ARM) Section 17.50.809, the following restrictions apply:

- *Pumpings may not be applied to land within 500 feet of any occupied or inhabitable building;*
- *Pumpings may not be applied to land within 150 feet of any state surface water, including ephemeral or intermittent drainages and wetlands;*
- *Pumpings may not be applied within 100 feet of any state, federal, county or city maintained highway or road;*
- *Pumpings may not be applied to land within 100 feet of any drinking water source;*
- *Pumpings may not be applied where ponding or runoff of septage is likely to occur;*
- *Pumpings may not be applied to land with slopes greater than 6%, or on slopes greater than 3% when the ground is frozen or snow covered;*
- *Pumpings may not be applied to land where less than six feet separate the land surface from seasonally high ground water;*
- *Pumpings may not be applied at a rate greater than the agronomic rate of the site for nitrogen on an annual basis; and,*
- *Pumpings may not be applied to land where a threatened or endangered species or its designated critical habitat is likely to be adversely affected;*

The area within the property selected for land application complies with the above restrictions as follows:

- *The areas of the property where land application will occur is located more than 500-feet from an occupied or inhabitable building on or adjacent to the property;*
- *Land application will not occur within 150 feet of the high water mark of Mud Springs Gulch or any other ephemeral or intermittent drainage and wetland;*
- *Land application will not occur within 100 feet of Highway 287 or Old Town Road;*
- *There is no drinking water well located within 100 feet of the areas designated for land application;*
- *Pumpings will be land applied using a spreader bar or splash plate in a manner that prevents ponding and runoff of septage. In addition, before any land application activities commence, a berm will be constructed between the application area and Mud Springs Gulch to ensure that run-off from the site does not enter the area;*
- *Areas within Site 1 and 2 that exceed the maximum allowable slope will be staked or otherwise marked to ensure that land application does not occur in those areas;*
- *Septage will be land applied at an annual application rate not to exceed 28,846 gallons per acre per year; and,*
- *There were no threatened or endangered species or critical habitats identified in the areas of the property that will be used for land application.*

The areas approved for land application within the property boundaries will meet the minimum requirements. When or if additional development occurs on adjacent properties, the site setbacks will be reviewed to ensure the minimum setbacks are maintained.

I.2 Comment:

A couple of commenter's stated that the soils at the site won't support the proposed activity, so the DEQ should deny the request for approval.

I.1 Response:

Comment noted. County soil surveys provide general information on soil suitability for various applications. The soil survey information for this location indicated that the dominant soil types for the areas on the property that will be used for land application have characteristics that would limit the use for septic tank drainfields and sewage lagoons. However, the soil survey does not evaluate the soil suitability for the land application of septage. On site test pits were dug to evaluate whether or not the soils at the site were suitable for the proposed activity. The results of the evaluation indicated that the soils are suitable for the proposed land application activity.

Sewage lagoons and septic tank drainfields are wastewater treatment systems that serve a specific function, primarily the removal of solids and the treatment of wastewater effluent through evaporation or infiltration. Land application of septage, on the other hand, provides both moisture and nutrients to site vegetation. The infiltration of liquids from the land application process to depths below the plant root zone is an undesired outcome of the process. The application rate for septage applied at this particular site will not exceed 28,846 gallons per acre per year. This is an annual limitation. This volume of liquid is equal to 1.06 inches of liquid per year. This is less than the amount of precipitation that is typically received in the area during the month of August.

Septage will not be applied to the Ustic Torriorthents on site. These soils are not suited for land application and found at this site in areas where land application would already be prohibited – the wetlands in Mud Spring Gulch.

II. Traffic Impacts and Site Access**II.1 Comment:**

A few commenters noted concerns about an increase in traffic on Old Town Road.

II.1 Response:

Comment noted. Portions of the land application site could be accessed off of Old Town Road, but because land application will occur at the site on an as-needed basis, the impact to current traffic and road use was determined to be minor. Old Town Road currently supports traffic to rural homes, farms and ranches, including heavy equipment and large vehicles associated with the current agricultural activities and local utility companies in the area.

II.2 Comment:

A commenter was concerned that if the site was accessed from Old Town Road that the applicant would not be able to use the southwest portion of the site without crossing through Mud Spring Gulch.

II.2 Response:

Comment noted. DEQ is not aware of any plans to access portions of the site via Mud Spring Gulch. The applicant will determine the best ingress and egress points for the property based upon their need to ensure the portions of the site usable for land application are accessible. DEQ has no authority to regulate how the applicant accesses the property. It is the responsibility of the applicant to determine whether additional permits are necessary should the applicant choose to construct additional site access points.

III. Surface Water Impacts

III.1 Comment:

Commenters noted that the site contains jurisdictional wetlands, but that the EA indicated that there were no wetlands on the site.

III.1 Response:

Comment noted. The EA stated that “There are no wetlands or permanent surface water bodies located on the proposed site.” In this case, the ‘proposed site’ refers to the areas within the property proposed for land application, not the entire site. There will be no land application within 150-feet of the exterior boundary (ordinary high water mark) of the wetland or of any other ephemeral stream channel(s) identified on the property including Mud Spring Gulch. The applicant will be required to complete a wetland delineation survey for submittal to DEQ for review prior to the installation of earthen berms on site.

III.2 Comment:

A few commenters noted that a USACE 404 permit would be required if land application was to occur in the wetlands. The commenters were concerned that the proposal may inadvertently authorize the filling of jurisdictional wetlands.

III.2 Response:

Comment noted. The laws and rules prohibit land application within 150 feet of any state surface water, including ephemeral streams and wetlands. There will be no land application within 150 feet of the exterior boundary (ordinary high water mark) of the wetland or of any other ephemeral stream channel(s) identified on the property including Mud Spring Gulch.

III.3 Comment:

Commenters were concerned that run off from the site would carry wastes to the Jefferson River.

III.3 Response:

Comment noted. As noted previously, land application will not occur within at least 150 feet of any ephemeral drainage or wetland. In addition, land application is prohibited on slopes exceeding 6%.

DEQ will require that all site setbacks be marked and maintained to ensure that any runoff as a result of land application site activities does not occur at any time. A 12 -inch earthen berm will be constructed between Mud Spring Gulch and the southern boundary of Site 1, and, between Mud Spring Gulch and the northern boundary of Site 2. These features must be in place prior to the start-up of any land application at the site.

Finally, all land application requires the use of a dispersive mechanism to ensure that pumpings are applied in a manner that prevents ponding or runoff of septage. Therefore, based on the minimum setbacks and additional protections, DEQ considers it unlikely that septage will runoff and contaminate any surface water body in proximity of the site. During routine DEQ inspections, any sign of runoff or application outside of the approved areas will be noted as a violation. Violations require immediate correction by the pumper. Failure to prevent runoff can result in closure of a land application site. DEQ believes the site will be managed in a manner to prevent potential impacts to surface water.

III.4 Comment:

One commenter stated that a 404 permit from the Corps of Engineers would not be required if the project does not involve the installation of fill in waterways and wetlands. This commenter also stated that if waterways and wetlands were to be filled in, an on the ground wetland delineation is required.

III.4 Response:

Comment noted. DEQ will convey this information to the applicant. Please also see the response to Comment III.1 (above).

IV. Ground Water Impacts

IV.1 Comment:

A few commenters expressed the concerns that groundwater and residential wells would become contaminated by the proposed activities at the land application site.

IV.1 Response:

Comments noted. The laws and rules regulating land application require a minimum depth to groundwater of 6 feet below ground surface, which is met at this site. There are no wells on the parcels at the property that are proposed for land application. Further, as long as the septage is applied in the required manner, the liquid portion will be absorbed into the soil and utilized by the vegetation as a source of moisture. The septage will be further degraded by exposure to the sun and the atmosphere, will be absorbed and oxidized by elements in the soil zone, and will biodegrade as the subsurface microorganisms use the material as an energy source. These mechanisms make it extremely unlikely that any measurable quantity of contaminants from septage at the land application site will reach the groundwater.

V. Wildlife Impacts

V.1 Comment:

One commenter noted that the local terrestrial and avian habitats would be affected.

V.1 Response:

Comment noted. As stated in the EA, a search of the Montana Natural Heritage Program indicated the Golden Eagle, Great Blue Heron, Burrowing Owl, Ferruginous Hawk, Veery, Boblink, Pinyon Jay, Loggerhead Shrike, Clarks Nutcracker, Long-billed Curlew, Sage Thrasher, Brewers Sparrow, Greater Short-horned Lizard, Hoary Bat, Western Spotted Skunk, Arctic Grayling, Indian Paintbrush, Beaked Spikerush and Ute Ladies Tresses are listed as species of concern. Designation as a species of concern is not a statutory or regulatory classification. Instead, these designations provide a basis for resource managers and decision-makers to make proactive decisions regarding species conservation. The site is and has been used historically for livestock grazing and the production of agricultural crops. In addition, the subdivision developments near the site have resulted in the forced relocation of terrestrial and avian species because of the loss of habitat as a result of human development. However, because there is adequate acreage of similar habitat available in the vicinity to accommodate any species that may be forced to relocate, and the site will only be used as needed, the impact of land application activities on habitat is considered to be minor.

VI. Environmental Assessment (EA)

VI.1 Comment:

A few commenters stated that the EA did not consider other Broadwater County ordinances when reviewing the application and the proposed use is an inappropriate land use.

VI.1 Response:

Comment noted. There are currently no County ordinances or zoning restrictions that prohibit the land application of septage and similar wastes.

VI.2 Comment:

One commenter stated that the EA failed to identify other alternative sites.

VI.2 Response:

Comment noted. It is not the responsibility of DEQ to identify alternative sites pumpers may use for land application. The pumper business is responsible for finding its own land application site. While alternative sites may exist, DEQ's review of any site proposed for similar activity is specific to the applicant's proposal at the particular location.

VII. Site Operation and Management

VII.1 Comment:

Several commenters said that the applicant should not be allowed to dump raw sewage on the property.

VII.1 Response:

Comment noted. The applicant is proposing to dump septage on the property, not raw sewage. Septage is not considered raw sewage. Raw sewage is untreated wastes such as black water from recreational vehicle and sewage from homes tied to a local wastewater treatment plant. Section 75-10-1201(7), Montana Code Annotated (MCA) defines "septage" as liquid or solid material removed from a septic tank, cesspool, portable toilet, or similar treatment works that receives only domestic sewage. Septage removed from a septic tank is not raw sewage because it has undergone primary treatment by the bacteria that live in the septic tank. This primary treatment process is similar to the digestion that takes place at a waste water treatment facility, but obviously at a much smaller scale.

VII.2 Comment:

Commenters were concerned about odors coming from the land application site.

VII.2 Response:

Comment noted. As long as the licensee adheres to the minimum vector attraction and pathogen reduction (VAPR) requirements, there should be no strong odors off-site associated with the activity. Tilling incorporates the pumpings into the soil allowing soil bacteria to degrade the wastes. Although DEQ has no authority to regulate odors, the presence of strong odors off-site attributable to the land application of septage is typically an indication of improper site management to which we would respond. During previous site inspections, inspectors have stood next to the pumper trucks as they were land applying their loads. When the septage is initially applied, an odor is usually detected. As the inspector walked through the wet application area only minor odors were detected, however such odors dissipate in a short period of time. By the time the inspection was completed, the odors associated with the land application were undetectable. In addition, there are no occupied or inhabitable buildings within 500 feet of the land application area. It is unlikely that odors from the land application activities will be detectable outside the boundaries of the land application areas.

VII.3 Comment:

Commenters were concerned about the increased insect population that will impact the area and the surrounding subdivisions.

VII.3 Response:

Comment noted. The required litter removal and incorporation or alkali-stabilization are methods used to destroy pathogens and reduce the attractiveness of the waste to vectors like flies and rodents. These methods also reduce the potential for objectionable odors. At this location, the applicant will be required to screen all wastes prior to land application to remove all non-putrescible litter.

VIII. Miscellaneous**VIII.1 Comment:**

One commenter stated that the pumper should be required to dispose of the waste at a permitted wastewater treatment facility instead of being allowed to land apply the wastes.

VIII.1 Response:

Comment noted. Current laws and rules in Montana do not prohibit the land application of septage or similar wastes. The majority of wastewater treatment facilities in the state do not accept septage removed from a septic tank. As a result, land application remains for many pumpers the only alternative disposal method.

VIII.2 Comment:

Commenter's stated that land application activities at the site would devalue their properties.

VIII.2 Response:

Comment noted. The pumpings being added to this property are being used as a fertilizer – a common practice at many farms and ranches in Montana. Pumpings from septic tanks are being used as a supplement to commercial fertilizers throughout the United States. Income and property values adjacent to farms and ranches have not been affected by this properly managed practice. Further, DEQ is not aware of any drastic reduction in income or property values near land application sites anywhere in the State of Montana.

VIII.3 Comment:

One commenter stated that DEQ failed to provide adequate notice to adjacent landowners.

VIII.3 Response:

Comment noted. The Montana Environmental Policy Act (MEPA) allows state agencies to establish their own policies for the dissemination of such documents. DEQ uses the Montana Cadastral database to identify property owners. The EA was sent to all property owners with a contiguous boundary to the property. Copies were also sent to other agencies for comment. These included the Broadwater County Sanitarian, Broadwater County Commissioners, the Montana Department of Fish, Wildlife & Parks, the Environmental Quality Council, and the Documents Section of the State Library. Every effort was made to notify and involve interested parties. DEQ believes that the amount of publicity and scrutiny the proposal has received demonstrates that our goal for a high level of public engagement was accomplished.

IX. Conclusions and Recommendations

Based on the review of all the materials and comments submitted, DEQ believes that a license that meets the requirements of the laws and rules for solid waste management and is protective of human health and the environment can be issued for the land application of septage and grease trap waste on the property. DEQ will approve the request for the land application site with the following additional conditions:

1. All waste must be screened to ensure that all non-putrescible litter is removed prior to land application;
2. A wetland delineation survey must be completed and submitted to DEQ for review and approval prior to the commencement of any land application activities on site;
3. A 12-inch earthen berm must be constructed between the southwestern boundary of Site 1 and Mud Spring Gulch, to ensure that potential runoff that may result from land application activities does not leave the land application boundaries;
4. A 12-inch earthen berm must be constructed between the northeastern boundary of Site 21 and Mud Spring Gulch, to ensure that potential runoff that may result from land application activities does not leave the land application boundaries;
5. Site setbacks for Site 1 and 2 must be marked and maintained on site using rock cairns or stakes and flagging to ensure that land application does not occur within 150 feet of the ordinary high water mark of any state surface water, within 100 feet of any state, federal, or county maintained highway or road, or to slopes greater than 6%.

DEQ will inspect Site 1 and Site 2 to ensure that the required setback features are in place prior to the start-up of operations at either site.